

THE GENERIC NAME PETALONEMA

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THE GENERIC name *Petalonema* has the fortunately unusual distinction of having been used by various authors since the beginning of the present century for no fewer than four different genera of plants, belonging to as many families. The present investigation was undertaken in order to ascertain whether one of the four, *Petalonema* Gilg, a small African genus of Melastomataceae, was validly named or not.

The four homonymous genera are as follows:

1. *Petalonema* Correns in *Flora* 1889: 346. *t.* 15, *figs.* 4-21. July 1889 (Cyanophyceae—Scytonemataceae).
2. *Petalonema* Gilg in *Engl. & Prantl, Nat. Pflanzenf. Nachtr.* 264. 1897 (Melastomataceae).
3. *Petalonema* Schlechter in *Repert. Sp. Nov.* 13: 543. 1915 (Asclepiadaceae).
4. *Petalonema* A. Peter in *Abh. Ges. Wiss. Göttingen, n. f.* 13(2): 84. 1928 (Balsaminaceae).

PETALONEMA Correns

The type of this genus is *Oscillatoria alata* Carm. ex Grev. *Scottish Crypt. Fl.* 4: *t.* 222. 1826. Upon this species Berkeley (*Gleanings of British Algae* 23. *t.* 7, *fig.* 2. 1833) based his new genus *Petalonema*, *P. alatum* being the only included species. According to the International Rules of Botanical Nomenclature (Art. 20, exceptions), the starting point of legitimate nomenclature of the Nostocaceae heterocystae is Bornet and Flahault's *Revision* (1886-88); in this work (*Ann. Sci. Nat. Bot.* VII. 5: 110. 1887) *Petalonema* is included under *Scytonema* in synonymy and is therefore not validly published.

To ascertain the date of the first valid and legitimate publication of *Petalonema* is a matter of some difficulty. Geitler (in *Engl. & Prantl, Nat. Pflanzenf.* ed. 2. 1b: 151. 1942) cites it as of "Berkeley . . . ex Kirchner in *E.P.* 1. Aufl. I. la (1898) 79"; this, however, is certainly not the earliest date. Wolle (*Fresh-water Algae of the U. S.* 267. 1887) took up *Petalonema* Berk. and described it. It will be noticed that Wolle's book and the relevant portion of Bornet and Flahault's *Revision* were published in the same year, and I have so far failed to find out which is the earlier. In view of the chronological doubt concerning Wolle's publication, it seems more satisfactory to accept that of Correns in *Flora* (1889). Correns, though he gives no formal diagnosis of *Petalonema*, on p. 346 clearly contrasts its characters with those of *Scytonema*. Mr. A. D. Cotton kindly undertook to give me his view on the validity of Corren's publication and, after discussion with Miss E. M. Wakefield, wrote that they were both of the opinion that the paragraphs in question "clearly describe *Petalonema* and validate its publication."

PETALONEMA Schlechter

Realizing that *Petalonema* Schlechter was a later homonym of *Petalonema* Gilg, Quisumbing (in *Philipp. Jour. Sci.* 41: 342. 1930) bestowed the new name *Schlechterianthus* on the former genus. It is desirable to note,

however, that *Schlechterianthus* is merely an orthographic variant of the previously published ficoidaceous genus *Schlechteranthus* Schwantes (in *Monatsschr. Deutsch. Kakt.-Ges.* 1: 16. 1929). Realizing this, Merrill (in *Philip. Jour. Sci.* 60: 33. 1936) renamed the Philippine *Schlechterianthus* as *Quisumbingia*.

PETALONEMA A. Peter

Peter (l. c.) distinguished his genus from *Impatiens* L. by its possession of filiform appendages to the petals descending into the spur. G. M. Schulze, in a paper entitled "Zur Gattung *Petalonema* Peter," in *Repert. Sp. Nov.* 39: 21-22. 1935, considered that this character was insufficient to justify generic separation and therefore reduced Peter's genus to *Impatiens*. Both Schulze (l. c.) and Mansfeld (on p. 36 of the same volume) noted that Peter's genus was a later homonym of that of Gilg; but neither botanist was evidently aware of the yet earlier algal genus. If *Petalonema* Peter is maintained as a distinct genus, it will have to be renamed.

PETALONEMA Gilg

From the discussion under *Petalonema* Correns it is clear that *Petalonema* Gilg is a later homonym of the former genus. *Petalonema* Correns has been employed in several recent standard algological works on the continent, e. g. by Kirchner in *Engl. & Prantl, Nat. Pflanzenf.* 1a: 79. 1900; by Geitler in *Pascher, Süßwasserfl. Deutschl. Österr. u. d. Schweiz* 12: 261. 1925, in *Rabenh. Kryptog. Fl. ed. 2.* 14: 788. 1932 (five species are dealt with here), and in *Engl. & Prantl, Nat. Pflanzenf. ed. 2.* 1b: 151. 1942. The current use of *Petalonema* Correns and the fact that *Petalonema* Gilg is a small genus of restricted distribution make it evident that the latter is not a suitable candidate for conservation. It is therefore proposed to rename *Petalonema* Gilg as follows:

Neopetalonema nom. nov.

Petalonema Gilg in *Engl. & Prantl, Nat. Pflanzenf. Nachtr.* 264. 1897, et in *Engl. Monogr. Afr. Pfl.-Fam. u. -Gatt.* 2: 28. 1898; *Engl. Pflanzenw. Afr.* 3(2): 755. 1921; non Correns nec Schlechter nec A. Peter.

Neopetalonema pulchrum (Gilg) comb. nov.

Petalonema pulchrum Gilg, ll. cc.; *Engl.* l. c.

Gilg at first made *Petalonema* feminine, but later correctly changed its gender to neuter; the new generic name coined above will have the same gender (*Int. Rules, Art. 72, examples*).

A second species of *Petalonema*, *P. glanduligerum* Pellegr. in *Bull. Mus. Nat. Hist. Nat. Paris* 30: 326. 1924, has been described from the French Congo. I have seen no material of this and am therefore at present unwilling to rename it.

In conclusion I must sincerely thank Mr. A. D. Cotton, Professor F. E. Fritsch, and Miss E. M. Wakefield for help with the algological part of this study.

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